REMARKS

Applicants appreciate the detailed examination evidenced by the Final Office Action mailed October 9, 2007 (hereinafter "Final Action") and the indication that the previous drawing objections and the 35 U.S.C. §112, second paragraph, and 35 U.S.C. §101 rejections are withdrawn. Claims 1, 3-10, 12-19, 21-28, 30-32, 34 and 35 are pending. Applicants have provided remarks herein detailing why the cited references do not disclose all the recitations of the pending claims. Applicants respectfully submit that the pending claims are patentable for at least the reasons described herein.

Response to Arguments

Responsive to Applicants' previously submitted arguments, the Final Action states that "[i]n response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references." Final Action, page 2. Applicants respectfully submit that when a rejection cites a reference for a particular teaching, an argument that refutes the allegation in the rejection is a proper showing of nonobviousness.

In this regard, Applicants respectfully submit that the previously submitted arguments were specifically responsive to the allegations in the Office Action mailed on April 19, 2007 ("Office Action"). For example, the Office Action stated that "Yonnet discloses wherein each of the plurality of cross-sections includes the axis of rotation." Office Action, pages 4-5. In response to the statement of rejection, Applicants noted that, the portion of Yonnet cited in the rejection does not disclose or suggest "computing plasma characteristics for each of a plurality of cross-sections of the reaction chamber such that each of the plurality of cross-sections includes the axis of rotation," as recited in Claim 1. Accordingly, Applicants respectfully submit that the Final Action erroneously characterizes Applicants' previously submitted argument as attacking references individually.

Independent Claims 1, 10, 19, 28, and 32 are patentable over Chung et al. and Yonnet

Claims 1, 3, 5-10, 12, 14-19, 21, 23-28, 30-32 and 34-35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over "Integrated Simulation of Equipment and

Topography for Plasma Etching in the DRM Reactor," by W.Y. Chung, J.J. Oh, T.K. Kim, J.K. Shin, K Seo, Y.K. Park, and J.T. Kong, 2000 IEEE (hereinafter "Chung") in view of "Permanent magnet Configuration for Magnetic-Field-Enhanced RIE," by J.P. Yonnet and A. Picard, IEEE 1990 (hereinafter "Yonnet"). Applicants respectfully traverse the rejection as Chung and Yonnet, alone or in combination, do not disclose or suggest all of the recitations of Claims 1, 10, 19, 28 and 32.

Claim 1, recites, in part:

> generating a generalized model of the plasma from the computed plasma characteristics for the plurality of cross-sections,
> wherein the plurality of moving magnets rotate about an axis of rotation, and wherein ***each of the plurality of cross-sections includes the axis of rotation***.

(*Emphasis added.*) Claims 10, 19, 28 and 32 include similar recitations. The Final Action asserts that:

> Chung discloses wherein the 2-dimensional plasma simulation is performed for a plurality of 2-dimensional cross-sections (See: Page 128, left side column, first and second paragraph). However, ***Chung fails expressly to disclose*** wherein the 2-dimensional plasma simulation is performed for a plurality of 2-dimensional cross-sections including an axis. ***Yonnet discloses wherein the 2-dimensional plasma simulation is performed for a plurality of 2-dimensional cross-sections includes an axis***. (See: Fig.7-Fig.12; "IV. Rotating Magnet Systems" of page 291). (*Emphasis added.*)

Final Action, pages 9-10.

As an initial matter, Applicants note that even if the above cited statement of rejection were correct, which it is not, Chung and Yonnet, alone or in combination would not disclose the recitations of Claim 1. For example, the Final Action states that Yonnet discloses performing the simulation for cross-sections "includes **an** axis." In contrast, Claim 1 recites that each of the plurality of cross-sections includes **the** axis of rotation. Applicants respectfully note that "**the** axis of rotation," as recited in Claim 1 is specific relative to other recitations of the Claim.

Additionally, the cited portion of Yonnet describes moving magnets such that "the magnet rotation axes are parallel, in the same plane and their spacing is 'E'" and that "all the magnets are driven synchronously at the same uniform rotation speed." Yonnet, IV. Rotating

Magnet Systems. In this regard, as illustrated in Figure 6 (reproduced below), Yonnet appears to describe that the magnets are arranged in a planar configuration and that each magnet appears to rotate about its own longitudinally oriented axis. In this regard, Yonnet does not appear to describe a specific axis of rotation that is common to the plurality of magnets. As such, any processes simulated and/or performed that are described in Yonnet are necessarily not performed regarding cross-sections that include "**the** axis of rotation," as recited in Claim 1.

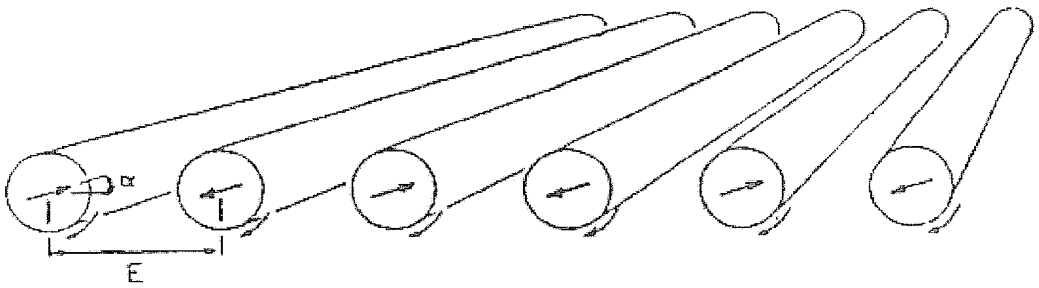

Fig. 6. Rotating magnet system, using parallel-magnetized bar-shaped magnets.

Thus, Yonnet does not disclose or suggest computing plasma characteristics for each of a plurality of cross-sections of the reaction chamber such that each of the plurality of cross-sections includes the axis of rotation, as recited in Claim 1. Accordingly, **Yonnet does not provide the teachings alleged in the Final Action** and the combination of Chung and Yonnet does not teach or suggest all the recitations of Claim 1.

Moreover, in contrast with Claim 1, Yonnet does not appear to generate a plasma model that includes any of the axes of the magnets. For example, as illustrated in Fig. 5 of Yonnet (reproduced below), the plasma appears to be above a linear arrangement of permanent magnets fixed on a roller chain. In this regard, since Yonnet does not appear to describe a reactor chamber that includes any axes of the magnets, one of ordinary skill in the art would not be motivated to consider the teachings of Yonnet and Chung together.

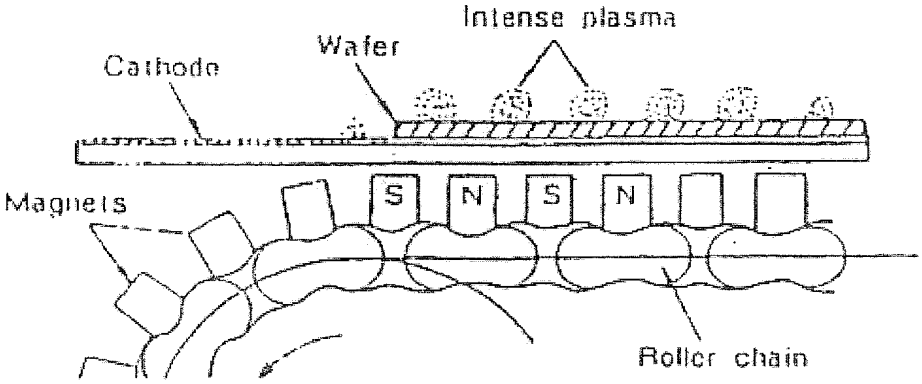

Fig. 5. Continuous scanning made with permanent magnets fixed on a roller chain [10].

For at least the foregoing reasons, Applicants submit that Claim 1 is patentable. Applicants submit that independent Claims 10, 19, 28 and 32 are patentable for at least similar reasons.

The Dependent Claims Are Patentable

Applicants submit that the dependent claims are patentable at least by virtue of the patentability of the various ones of independent Claims 1, 10, 19, 28, and 32, from which they depend.

Conclusion

Applicants submit that the claims are patentable for at least the reasons discussed above. Applicants respectfully request allowance of the claims and passing of the application to issue in due course. Applicants encourage the Examiner to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,

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CERTIFICATION OF TRANSMISSION

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